

## EXPLANATION OF DIAGRAMS.

- a.* Left ædeagus-guide of *H. alveus* in the lateral aspect.  
*b.* Right ædeagus-guide of *H. alveus* in the cephalo-vertical aspect.  
*c.* Left ædeagus-guide of *H. armoricanus* in the lateral aspect.  
*d.* Right ædeagus-guide of *H. armoricanus* in the cephalo-vertical aspect.  
 Figures *c* and *d* from an original Norfolk example.

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## BIOLOGICAL AND SYSTEMATIC NOTES ON BRITISH THYSANOPTERA.

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THE notes below include the descriptions of four British species of Thysanoptera hitherto undescribed, records of three new to the British Fauna and notes on the life histories of several species, some of which are of economic importance. The biologic notes are for the most part incomplete, but they are published now as circumstances make it unlikely that I shall continue work on the group during the next few years.

## Sub-Order TEREBRANTIA.

## Family Æolothripidæ.

*Rhipidothrips*, Uzel.

Since describing *R. brunneus* ('Journ. Econ. Biol.' viii, 1913, p. 216) I have had the opportunity of examining a specimen of *R. niveipennis*, Reut., from the collection of Reuter. I find that it differs in several respects from the published description, which necessitates alterations in the key to the genus which I gave on p. 218, *l. c.*

The species can be best separated as follows :

(*a*) Cheeks slightly arched, with three or four short, stout, forwardly directed spines on the lateral margin of the head behind the eyes. Tibiæ slightly paler near the tip, tarsi pale brown. . . . . *brunneus*, Williams.

(*b*) Cheeks parallel, with no stout spines on lateral margin. Tibiæ suddenly much lighter near tip (near middle in anterior pair). Tarsi pale yellowish. . . . . *niveipennis*, Reuter.

The figure of the antenna of *R. niveipennis* given by Reuter is quite useless. The following are measurements of a specimen from his collection kindly lent to me for comparison by Mr. J. D. Hood :

Segment	.	1	2	3	4	5	6	7	8	9
Length ( $\mu$ )	.	32	46	75	66	55	40	36	16	8
Width ( $\mu$ )	.	40	31	21	22	21	23	21	12	6

The species also possesses a single long spine at the hind angle of the prothorax, which must have been overlooked or accidentally removed in the specimens described by Reuter. Reuter's descriptions were apparently all made from specimens mounted dry on cards—a method which leads to endless mistakes and cannot be too strongly condemned.

### Family Thripidæ.

#### Genus *Sericothrips*, Haliday.

Up to the present all the European specimens of the genus have passed under the name of *S. staphylinus*, Haliday—a species originally described, quite insufficiently, in 1836 as frequenting flowers of *Ulex* in England. Uzel, in 1895, redescribed what he called *S. staphylinus*, Hal., from Bohemian specimens found among grass, etc. In 1910 Karny described *Rhytidothrips bicornis*, which he later stated to belong to the genus *Sericothrips* and to be identical with *S. staphylinus* (as described by Uzel). I have specimens of the species described by Karny from his collection and also specimens from the collection of Dr. Uzel. I have also been able to obtain some numbers of the British species from flowers of *Ulex*, which is without any doubt that described by Haliday. An examination of these shows that the species called by Uzel *staphylinus* and that described by Karny as *bicornis* are the same, but are not the British *S. staphylinus* of Haliday. A second British species is described below, so that there are now three European members of this genus known.

#### *Sericothrips gracilicornis*, sp. nov.

1913. *Sericothrips staphylinus*. Williams, Journ. Econ. Biol.,  
viii, p. 219 (in part).  
1913. „ „ Bagnall, Journ. Econ. Biol.,  
viii, p. 232 (in part).

*Female* (macropterous).—*Measurements*.—Total length about 1.1 mm., head length 0.116 mm., width 0.188 mm.; prothorax length 0.144 mm., width 0.224 mm.; pterothorax length (dorsally) 0.210 mm., width 0.260 mm.; abdomen width about 0.320 mm.; wing length 0.78 mm.; width (about half way along) 0.040 mm.

Antennæ: Segment	.	1	2	3	4	5	6	7	8
Length ( $\mu$ )	.	26	40	74	60	49	58	12	14
Width ( $\mu$ )	.	32	29	21	20	19	17	7	5

Total length of antennæ 0.330 mm.

*Colour*.—Body dark brown. Femora as dark as the body except

the tip of the fore femora, which are a little lighter. Fore tibiæ light brown, mid and hind tibiæ a little darker, except near the tip, which is similar in colour. All tarsi pale brown. Wings dark brown at the extreme base, then a colourless area for about one-sixth of the wing length, and from the end of this to the apex pale brown. Antennæ brown, except for the first two segments, which are very pale, and the third, which is paler at the base, becoming darker to the apex.

*Surface figuring of chitin.*—Transverse striations on the frons, round the ocelli and on the back of the head. A thick, heavily chitinised band from near the posterior lateral margin of the head coming forward on the dorsal surface to the level of the hind margin of the eyes; this thickening is on the internal surface of the chitin. The chitinised surface of the head behind it is thinner and more transparent. The prothorax is covered with a number of transverse dark striations; a mid-dorsal longitudinal line would cut approximately 36–41 of these striæ. There are six smaller and two larger irregular depressed areas more free from striations. Meso- and meta-notum striated. On the abdominal tergites 1–8, and on the legs all the striations are lined with minute setæ, which give the characteristic silky gloss to the species of this genus during life. The mid-dorsal posterior part of the abdominal tergites are free from striations and setæ, particularly on segments 1–4. This may possibly be correlated with the presence of wings. On the third abdominal tergite there are about 16–17 lines of striation. Each abdominal tergite has a stout transverse internal thickening near the anterior margin, which probably serves for the attachment of muscles.

*Head* one and a half times as broad as long, broadest across the eyes. Frons depressed in front of the anterior ocellus. *Eyes* large, projecting slightly on the front margin; distance between the eyes one and a half times the width of the eyes, distance from the eye to the back of the head only a little more than half the length of the eye. *Ocelli* small, the anterior one directed forward; the two posterior distant from the margin of the eye; no noticeable coloration beneath. Two stout spines on each side of the frons in front of the ocelli, one near the mid line, the other near the margin of the eye; a stout spine just on each side of the anterior ocellus; one long and two short spines near the posterior dorsal angle of the eye and three forwardly directed spines on the cheeks. *Mouth-cone* reaching about three-quarters across the prosternum. *Maxillary palps* three-segmented, relative length of segments 7:5:6. *Antennæ* (Fig. 1a) almost three times as long as the head, relatively longer and more slender than the other European species of the genus. The first segment short and barrel-shaped; the second longer but not so broad, tapering at each end but more so at the base; the third long and slender, three and two-third times as long as broad with a short pedicel at the base, widest at the apical third then abruptly narrowed to an apical neck; the fourth shorter than the third, three times as long as broad, and with an apical neck as on the third; the fifth two and a half times as long as broad, widest in the middle; the sixth about as long as the fourth: the eighth a little longer than the seventh. Forked trichomes dorsally on the third and ventrally on the

fourth segments, and much shorter simple ones near the apex of the fifth and sixth segments externally. For coloration see above.

*Prothorax* about one-fifth longer and wider than the head. One long stout inwardly curved spine on the hind margin near the lateral end; a pair of slightly shorter spines between these; a short stout

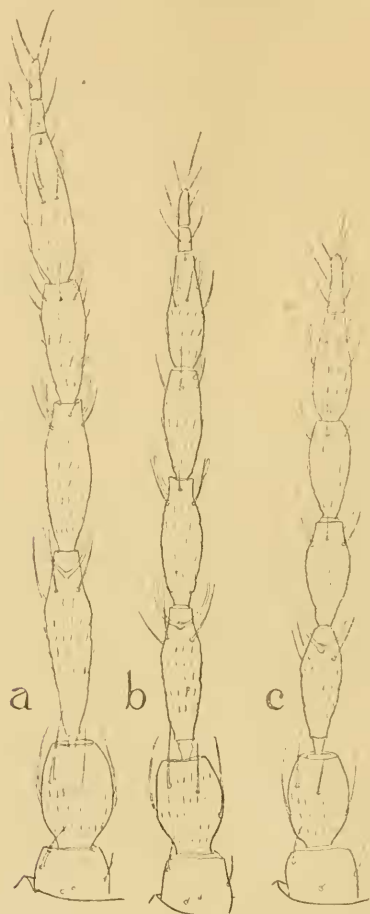


FIG. 1.—Antenna of (a) *Sericothrips gracilicornis*; (b) *S. bicornis*; and (c) *S. Staphylinus*.

forwardly directed inwardly bent spine at each front angle, four fairly long spines in a row just behind the front margin; six or eight of similar length in a slightly irregular row across the middle of the pronotum and one other on each side between this row and the long posterior marginal spines. *Pterothorax* normal. *Legs* fairly long and slender, used for jumping. *Wings* fully developed (in the two female specimens known), broad at the base, then narrowing by the

bending in of the front margin. On the fore wings there is no trace of a hind vein; the fore vein is represented by a row of short spines, 3 at the base, then a short space on the clear part of the wing, then 16-20 with a short space just before the last spine. At this level there is one spine nearer the hind margin of the wing which may represent the last of the row of spines usually present on the hind vein; 22-25 spines on the costa. The costal fringe begins about one-quarter the wing length from the base. Colour pale brown with a narrow colourless band just before the base. Hind wings pale brown with a darker central vein distinct almost to the tip of the wing.

*Abdomen* normal. On the hind margin of tergites two to eight there is a fairly stout spine inset near each lateral end. Along the whole of the hind margin of these tergites there is a fine comb. The hind margin of sternites 2-6 is ornamented with alternate lengths of fine comb and long slender inset spines; there are six of these spines on each sternite.

*Male* (macropterous) about one-sixth smaller than the female. *Antenna* similar in colour to those of the female. Wings fully developed, 15-17 spines on the outer half of the fore vein; 20-23 on the costa. On the abdominal sternites 3-7 there is a comparatively large round clear area surrounded by a dark margin; the diameter of this area is about one-third the length of the sternite. This area is little if any paler than the surrounding sternite and has a granular appearance.

*Type* in the author's collection.

Described from one female swept from mixed herbage on a railway bank at Yarnton, near Oxford, England, by C. B. Williams, on July 13th, 1913, and one female and one male taken in the same locality by Mr. R. S. Bagnall (date unknown) on Bedstraw (*Galium*).

*Sericothrips staphylinus*, Haliday (*nec* Uzel).

1836. *Sericothrips staphylinus* Haliday, Ent. Mag., iii, p. 444.  
 1852. " " Haliday, in Walker Homopt. Ins. Brit. Mus., p. 1103.  
 1913. " " Williams, Journ. Econ. Biol., viii, p. 219 (in part).  
 1913. " " Bagnall, Journ. Econ. Biol., viii, p. 232 (in part).

*Female* (brachypterous).—*Measurements*.—Total length about 0.9 mm. Head length about 0.85 mm.; width 0.172 mm.; prothorax length 0.132 mm.; width 0.212 mm.; pterothorax length (dorsally) 0.120 mm.; width 0.220 mm.; abdomen width about 0.300 mm.

Antennæ: Segment	1	2	3	4	5	6	7	8
Length ( $\mu$ )	19	41	52	42	42	48	8	12
Width ( $\mu$ )	31	29	21	23	21	18	6	5

Total length of antennæ 0.288 mm.

This species differs from *S. gracilicornis* chiefly in the rela-



tively much shorter and stouter antennæ (Fig. 1c). The third antennal segment is only about two and a half times as long as broad. The first segment is dark except near the tip, the second pale yellow, the third also pale except near the tip, the fourth to eighth are very dark brown. There are 33-36 transverse striations crossing the mid line of the prothorax and 10-12 on the third abdominal tergite. There are no areas free of minute spines on the basal abdominal tergites as described for *S. gracilicornis*, but this is probably only a character of brachypterous forms, as *S. bicornis* agrees with *S. staphylinus* in this respect.

*Male*.—The circular areas on the abdominal sternites 3-7 are transverse oval in shape and gradually increase in size from in front, that on the third sternite being much smaller than in *S. gracilicornis*, and that in the seventh about the same size, but differing in shape.

At present only brachypterous males and females of this species have been found on flowers of *Ulex nanus* and *Ulex europæus*.

*Localities*.—New Forest, Hampshire; Bidston, Cheshire; Ilfracombe, Devonshire; there is yet no certain evidence of this species outside England.

*Sericothrips bicornis* (Karny).

1895. *Sericothrips staphylinus*, Uzel, Monog. Thysanopt. p. 91.  
 1910. *Rhytidothrips bicornis*, Karny, Mitt. Nat. Univ. Wein. vol. viii, p. 50.  
 1913. *Sericothrips staphylinus*, Karny, Zool. Anz. xliii, p. 134.

*Measurements of Female*.—Head length 0.112 mm., width 0.176 mm.; prothorax length 0.136 mm., width 0.232 mm.; pterothorax length dorsally 0.104 mm., width 0.240 mm.; abdomen width about 0.36 mm.

Antennæ: Segment	1	2	3	4	5	6	7	8
Length ( $\mu$ )	28	42	62	53	44	54	10	14
Width ( $\mu$ )	29	28	20	20	19	18	8	6

Total body length about 0.95 mm.; antennæ 0.29 mm.

*Female* (only brachypterous specimens seen).—Differs from *S. gracilicornis* in the shorter and stouter antennæ (Fig. 1b), which are, however, not so short as in *S. staphylinus*. Also differs from both *staphylinus* and *gracilicornis* in the much more close nature of the spinose striation of the chitin. A mid-dorsal line on the prothorax in this species cuts about 48-50 transverse striations, and a similar count on the third abdominal tergite gives 20-21 transverse striations. As mentioned under *S. staphylinus*, the whole of the median portion of the tergites of the species (brachypterous) is covered with minute setæ.

*Male*.—The areas on the abdominal sternites 3-7 resemble those of *S. staphylinus* more than *S. gracilicornis*; the anterior one is small, but the three posterior are more nearly equal in size than

those of *S. staphylinus*. In shape they are slightly transversely oval, as in *S. staphylinus*.

*Distribution*.—Bohemia, Bosnia. [Sweden, Croatia, Sardinia, Tyrol, *teste* Karny, specimens not seen by the author.]

This species has not at present been found in England, but is introduced here in connection with the British species of the genus.

(To be continued.)

## PALÆONYSSIA: A NEW BISTONINE GENUS.

BY J. W. H. HARRISON, M.Sc.

In carrying out some researches into the geographical distribution of the Bistoninæ it has become necessary to use the above generic name, which up to the present has been a "convenience" name in my notes.

*Palæonyssia*, gen. nov.

*Male*.—Insect stout and robust; head, thorax, and breast with furry covering like *Lycia*, *Pæcilopsis*, and *Nyssia*. Abdomen *very feebly covered with weak scales* like *Megabiston*. Antennæ *very stout and long*, armed with powerful pectinations of *very even* lengths; pectinations *very strongly ciliated*. Hind tibiæ armed with terminal spurs only. Male genitalia: *Æodeagus* small, covered with minute spiculations. Furca *stout, long, and finger-like* of a primitive Amphidasylid, rather than *Nyssia* type.

*Female*.—Apterous.

Type of genus: *Palæonyssia trisecta*, Warren.

Habitat: Natal, parts of Cape Colony and the Transvaal. 1879

This species was originally placed by Warren in the genus *Haggardia*, but removed thence to *Apocheima*, very probably on the discovery of its apterous female. This is an impossible reference, as *Apocheima* (type, *hispidaria*) has male genitalia with excised valves furnished with a strong armature of spines, the whole being of a very different type from what is seen in the present insect. In addition the furca in *hispidaria* is obscure and fused.

## AN AFRICAN ICHNEUMON IN LONDON.

BY CLAUDE MORLEY, F.Z.S., ETC.

My friend Mr. Bruce F. Cummings, of the Natural History Museum, South Kensington, was good enough to write in the middle of last August: "The enclosed two insects were found flying in a room here, in which some packages of skins, skulls, etc., from the Belgian Congo had been opened. This was on Monday [14th]; one is still lively now. Are they of any